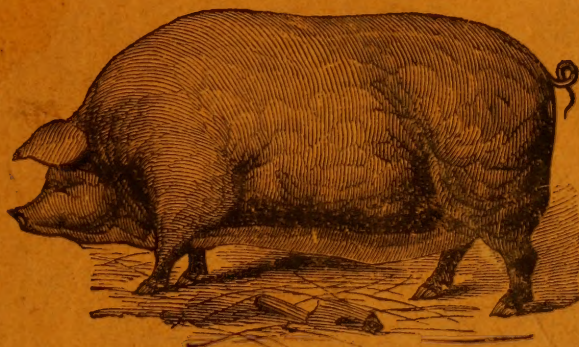


HOG-CHOLERA

—AND—

TEXAS CATTLE DISEASE



"Root, Hog, or Die!"

Cause, Prevention and Cure.

—BY—

JOHN S. MELLON.

APPROVED BY UNITED STATES COMMISSIONER

PRICE \$1.00.

ST. LOUIS, MO.

Pierce Bros., Printers, 211 North Third Street,

1878.

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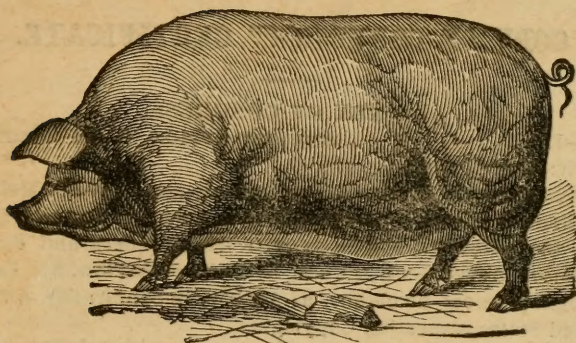
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UNITED STATES OF AMERICA.

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TEXAS CATTLE DISEASE



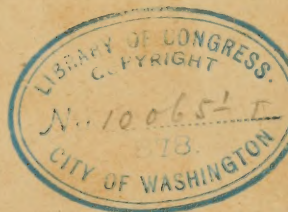
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To-wit: BE IT REMEMBERED,

That on the 2d day of September, anno domini, 1878, John S. Mellon, of St. Louis, has deposited in this office the title of a book, the title or description of which is in the following words, to wit: Hog-Cholera and Texas Cattle Disease, Cause, Prevention and Cure, by John S. Mellon, St. Louis, Mo.. 1878, the right whereof he claims, as Author, in conformity with the laws of the United States respecting Copyrights.

[Signed]

A. R. SPOFFORD,
Librarian of Congress.

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The following from Dr. J. N. McNutt, U. S. Commissioner for Missouri, on this subject, is a sufficient endorsement of the soundness and value of the present work :

PEVELY, Mo., Oct. 13, 1878.


MAJ. JOHN S. MELLON,

St. Louis, Mo.

DEAR SIR:—I have carefully read your treatise on the "hog," and take pleasure in assuring you that I heartily agree with you as to the nature of the disease. And I feel assured that if your suggestions as to growing, feeding, and caring for the hog, were carried out, "hog cholera," so called, would soon almost be a thing of the past.

Very Truly,

J. N. McNUTT.

 It would have been easy to secure certificates, in abundance, of the efficacy of the foregoing cure of hog-cholera; but this is so common, and generally so unreliable, that I have thought it better to append but a single statement, from a gentleman so well and favorably known that his single word will go further than the extravagant statements of many. The following is the certificate of Col. Walker of Howard County, Missouri, railroad commissioner for the State of Missouri:

ST. LOUIS, September 6, 1878.

Major Mellon gave me the turnip cure for hog-cholera. I selected a hog weighing ninety pounds that was very sick. This hog was one of a pen of one hundred, out of which eighty-seven had died. I placed the hog in a close pen, and cut a peck of turnips and placed them in the pen. The hog ate them during the day. The second day I fed lightly on corn meal mush, the third, the same with a little corn. The hog got well, and was the only one that did.

JOHN WALKER.

HOG-CHOLERA, OR INTESTINAL FEVER IN SWINE.

CHAPTER I.

INTRODUCTORY.

THE importance, to the material interests of the country, of the discovery and general promulgation of a sovereign remedy and sure preventive of the disease commonly known as hog-cholera, will be my sufficient apology for intruding upon the public the results of a long experience and patient investigation of this subject. I claim to have discovered the origin, nature and cure of this disease; and this claim is justified by all my reading, observation and experiment; and for these I have had ample opportunity, and have

used them to the utmost, as I shall now proceed to show.

In the first place, I was born and reared on a farm, and have been keenly and practically interested in the care and culture of stock during my whole life.

In the second place, from the date of my majority (and I am now fifty-eight years of age) to the beginning of the war between the States, I was constantly engaged in handling, caring for, buying and selling, exchanging and improving stock of all kinds, and more particularly, swine.

In the third place, starting with General Price in Missouri, I was, during four years, Commissary in the Confederate army, on a very large scale, and reporting directly to the Government. In short, I was a general and special agent of the Government in the matter of provisioning its armies. My field of operation and experiment, during the greater portion of this time, comprised the entire State of Mississippi and a large part of Alabama.

In this field of labor meat, of course, was the great desideratum; and meat in large quantities

could only be obtained from hogs. But to preserve the hog alive and in health until he was ready for killing did by no means solve the whole difficulty. Salt, for curing on a large scale, was so scarce as to be practically unobtainable. Its scarcity may be partly apprehended from the simple fact that it readily brought, in any market, more than 10,000 per cent. premium. Besides, if bacon could have been made upon a scale sufficiently large to supply the wants of the army, transportation was so meagre and interrupted that the supplies could not be conveyed to the widely scattered troops. The problem, then, as all will readily see, was a most difficult one; no less, indeed, than the creation and preservation, in many localities, of herds of swine sufficiently numerous and healthy to meet a never-ceasing demand.

Now, these living supplies were always liable to sudden destruction by the ravages of the terrible disease known as hog-cholera. Unless this fell destroyer could be met and baffled, all my labors for the accumulation of army supplies were liable to be rendered fruitless at any moment, and in the most unseasonable exigencies.

Then I thought and studied, and observed and experimented as I had never done before. The entire utility of my agency and my office depended upon success in this matter. If I could not both prevent and cure this terrible disease, it was useless to continue the work of accumulation and production. I set myself to study closely all the precedents and habits, both of health and disease, in the hog. I examined him living and dead, in every stage of health and disease, until I reached, at last, and rested in the simple certainty that I knew the secret of the terrible scourge, and could perfectly control it. From that time my troubles were ended. With twenty thousand hogs frequently on hand, in many localities and for several consecutive years, I experienced neither difficulty nor embarrassment in fulfilling the object of my trust. The benefits of this great success I desire now to impart to all who are interested, either practically or theoretically, in the growth and culture of sound and healthy swine.

From the close of the war to the present time, I have diligently endeavored to secure the attention to this subject of the Federal Government, and

have at last, to some extent succeeded. I induced our representative in Congress, General Cockerel, to call on the Commissioner of Agriculture for information upon this subject, and found him, as I expected, almost wholly destitute. His department had given the matter no systematic attention. Subsequently I drew up, and had presented to Congress, a bill, which was adopted by that body in June, 1878, appointing a Commission for the thorough investigation of the subject. With Dr. McNutt, of that Commission, I have often met, and found him better posted on the general subject than any other man with whom I have conversed. As will be seen by Doc. No. 35, second session, forty-fifth Congress, much and varied information has already been elicited, and it is evident, from the partial reports received by the Commissioner of Agriculture, that the country suffers an annual loss, from the scourges of disease among swine, of not less than \$40,000,000. This fact alone is sufficient to awake the attention of the Government, and justify a Congressional appropriation large enough to exhaust all the sources of knowledge and skill to discover and provide a remedy ade-

quate to an evil so gigantic. And when it is further remembered that the above named sum, large though it seems, merely represents the direct loss produced by this disease, and that no account is therein taken of the disastrous effects upon swine-culture, of individual discouragement and failure, and the necessary indifference or aversion to this industry which thence results, it will be seen that no statement could well exaggerate the importance of this interest to the material prosperity of the country. In the language of one of the sufferers, addressed to the Commissioner of Agriculture, we might almost be justified in saying, "Rid us of the hog-cholera, and we will bear the whole burden of the national debt."

CHAPTER II.

RISE AND PROGRESS OF HOG-CHOLERA.

The report of the Commissioner of Agriculture for 1875 contains an article on "Hog-Cholera—Intestinal Fever in Swine," by Prof. James Low, of Ithaca, N. Y., in which the symptoms and diagnosis of this disease are more accurately characterized, than in any other production which has fallen under my observation. This disease he properly enough defines as "a specific, contagious fever of swine, characterized by congestion and ulceration of the mucous membrane of the intestines, and to a less extent of the stomach; by general heat and redness of the skin, effaceable by pressure; by small red spots, complicated or not by elevations and blisters; by black spots and patches of blood escaped from its proper vessels on the integument, the snout, nose, eyes, mouth and all other visible mucous membranes, and on the internal organs, inefface-

able by pressure and tending to sloughing ;” and he adds, incorrectly as I think, and in plain inconsistency with a subsequent statement, “usually by liquid and fetid diarrhœa.”

“The malady has been long known to pig-raisers and pork-factors in the Old World and the New, but in veterinary works it has been mistakenly placed in the list of malignant anthrax affections, to which some of its lesions bear a striking resemblance. Two English works, published within the last year, repeat this time-honored fallacy. That it is essentially distinct, is shown by the fact that its virus, so frightfully contagious and fatal to pigs, is not communicable to any other domestic animal.”

Prof. Low goes on to say, with perfect accuracy, though in clear contradiction with his own remark above noted, that “The common American designation of hog-cholera has only the diarrhœa to support it, and as we see outbreaks, in which this feature is mainly remarkable for its absence, the name comes to be an absolute misnomer.”

All this, and much that follows is good enough, and the whole paper gives evidence of mature

deliberation and careful preparation, and is altogether a valuable contribution to the literature of this subject. It is only deficient in that wide and careful induction, which could alone have led its author to a safe and successful generalization on the cause and cure of this disease. His suggestions therefore on this branch of the subject, though coming from a scientific man, are really empirical and practically worthless.

Prof. H. J. Detmers, V. S., Bellegarde, Kans., in a report of the Commissioner of Agriculture for 1878, mainly devoted to this particular subject, contributes a paper still more valuable than that of Prof. Low, inasmuch as he has given to the matter more time and attention, and is therefore possessed of a wider range of practical information. In this paper Prof. Detmers even hints at what I deem the real cause of the malignant disease known as hog cholera, though he passes it with an observation so slight as to indicate that it had made no particular impression upon his own mind.

According to all my observation, this disease originates only with the fat hog. In all other cases it is the effect of contagion.

The first noticeable effect is, that the hog seems stupid, more or less off his feed, and disposed to go apart from the rest of the herd or pen.

2. He lies on his belly instead of on his side.

3. He shows great thirst, and this in proportion to his fatness.

4. Stands with his back humped up.

5. Some cough in the secondary stage of the disease. The disease has then reached the lungs.

6. Generally there is evidence of constipation, but in exceptional instances a fetid diarrhœa.

7. On the second day there are frequent and obviously difficult and painful attempts at urination. The kidneys are then effected.

8. Next may be observed the frequent or persistent raising of the snout and shaking of the head. The disease has attacked the brain.

9. Finally staggering, reeling, and death.

10. Generally it may be observed that the flesh shrinks with startling rapidity, as if the very substance of the hog were melting away in some internal fire.

Now, if we open and examine the dead hog, we shall find the stomach, intestines, lungs, heart,

kidneys, brain and spinal marrow, all more or less, deeply deranged and affected. Sometimes, but rarely, even the spleen and liver will be found in the same abnormal state, and the bones, after death, disappear with the flesh.

The stomach may show no more than a pink blush, but more commonly it is of a deep red, from congestion, and its mucous membrane is often black throughout.

The small intestines are usually extensively congested and of a deep red, in many cases approaching to black. More closely examined, small spots of slough will appear.

The large intestines present a similar discoloration, deposit, softening and ulceration. The food contained in the intestines is generally dry and hard.

In the air-passages of the lungs the mucous membrane is usually covered with black spots or a viscid mucous exudation. The anterior lobes are solidified, but remain bright red, tough and elastic.

The heart and liver will appear spotted, and these spots, if closely examined, will appear

small sloughs. Both sides of the heart contain soft, black clots of blood.

The kidneys will be found soft and covered sometimes with pus.

The brain and spinal marrow will be found absolutely rotten in protracted cases.

All this, with the exception of the brain and spinal affection, of course, applies particularly to the fat hog, with which the disease originates, or to others in a similar condition taking it by contact. Where this condition is wanting, the symptoms and appearances, on both *ante and post mortem* examination, are somewhat different, though not essentially so.

The disease, on the whole, bears a close resemblance to yellow fever in man. The immediate cause of death in both is congestion of the brain, lungs or kidneys.

CHAPTER III.

CAUSE OF INTESTINAL FEVER IN SWINE.

I AM satisfied from all my observation and experience, that this disease originates only with the grain-fattened hog, and is the real, though seldom immediate effect of such feeding. I have never known a case to start with any other description of hog, and I repeat that the disease is in every other instance the effect of contagion. It is proper to state, that in this conclusion I am supported by the conjectures of many other minds, though these have in no instance, of which I am aware, been pushed to their ultimate and legitimate result.

Thus Prof. Detmers in the paper, to which previous allusion has been made, says: "One very common mistake in feeding may also be mentioned as not entirely without influence. I refer to the practice of feeding nothing but corn. It may suffice, however, to say that corn does

not contain, in due proportion, all the elements necessary to the growth and developement of an animal; it is destitute of some and contains others in too small a proportion."

Just here the Professor pauses, no doubt from insufficient observation, upon the very brink of a great discovery. If he had remembered in this connection the simple fact, that in other years, when the comparatively undeveloped agricultural condition of the country did not allow of such exclusive grain-feeding, this disease was unknown, and then gone on to further observation and experiment in test of this theory, there is little doubt that he would have reached my own conclusion.

Others have made conjectures in the same direction. Thus Mr. I. Bacon, Wauconda, Ill., says: "If the ringer was abolished, and the hog allowed to use his natural propensity, I have no doubt the disease would be greatly abated."

This of course would be only because the food of the hog would, in that case, be mainly roots.

Mr. Z. I. Miller, Raywick, Ky., says: "A gentleman living in Nelson, an adjoining county to

this one (Marion), has not had a case in a lot of two hundred head of hogs, while his neighbors have lost from three hundred and fifty to four hundred head. Why should this be the case? Perhaps feeding has something to do with it. His neighbors, who feed nothing but dry corn, have suffered severely. Dry corn is too stimulating, and produces fever.

Mr. Jno. K. Bevis, Taylorville, Bartholomew County, Indiana, says: "Recently I have come to the conclusion that the rooter on the nose was put there for a purpose, and have not rung or cut the nose of any swine since. I have no reason to complain, as my hogs have since done well."

Mr. C. A. Adams, of Chillicothe, Livingston County, Missouri, says: "A change of feed from corn will always prove beneficial among hogs when diseases are prevalent."

Mr. R. K. Slosson, Verona, Grundy County, Illinois, says: "Indian corn is fed in many parts of the country, to the exclusion of those kinds of food, upon which the hog had previously lived, for hundreds of years perhaps, and corn is almost exclusively fat-producing. This necessarily pro-

duces physiological changes in the system, and these changes being, to say the least, partially abnormal, the body is prepared to take on diseases which were originally unknown to the hog."

Mr. J. Ballard, Niles, Berrien County, Michigan, says: "Another cause is no doubt found in an exclusive corn feed. This food is dry and heating, and soon produces fever, which is one of the first symptoms of so-called cholera."

Mr. Jno. Powers, Rutledge, Crenshaw County, Alabama, says: "Corn feeding will not do; it will kill in nine cases out of ten."

Mr. L. Orto, Bradford, White County, Arkansas, says: "My hogs, which live entirely in the woods, are seldom affected with diseases of any kind. There are many wild hogs here, and I do not believe they are ever affected in any way."

Mr. Charles F. Ingalls, Sublette, Lee County, Illinois, says: "I have thought that high feed, with Indian corn, from generation to generation, has worked constitutional debility in the hog."

The above testimonies from many and widely different fields of observation and experiment, and written without mutual knowledge or concert

on the part of their authors, sufficiently indicate a common tendency of thought in the observers of this disease.

It is thus plain to my mind (and I hope to render it equally plain to the minds of all other candid men), that the health and disease of the hog depend originally on feeding. The rooter on the swine's snout indicates clearly by what means nature intended him to get his living. To be healthy he must find his food, in great part at least, in the ground.

This point well understood, the next important thing is, that he should have easy rooting. Hence, soft bottoms, or ground shaded or rendered moist by a growth of timber are best for him. He should be allowed to run freely, for the most part, in the woods, or in ground broken and rendered soft by cultivation, and where he can find in sufficient quantity the roots which are the condition of his healthy life and normal growth. A high or exclusive grain-feeding renders the hog liable to disease in the same way as beer affects men. It is true the hog will fatten most rapidly on corn, just as the man will fatten most

rapidly on beer; but there is no sound health in either. The first stroke of disease or effect of excess lays them both low.

Thus prepared, by a diet too highly stimulating, to take on disease, the slightest change of habit in the hog will often bring it on. A change of quarters, a change of weather, an unaccustomed exposure, over-heating, over-crowding, over-driving, even the slightest and least noticed change, may bring on the dreaded disease. And once developed in a single instance, there is no safety for the herd save in immediate, perfect and remote isolation of the healthy from the sick. Just as men and women fly from the contagion of yellow fever until cities are depopulated, so must hog be separated from hog till farms and plantations are left destitute of swine. This contagion is most deadly penetrating, subtle and active. It can be borne on the wind for a very long distance. It can be carried by a stream of pure running water. It will remain for months in an infected ear or pen, and nothing but frost will destroy it; for though the disease may originate in the winter, it will not spread beyond

the immediate herd. Here again it is strikingly like yellow fever.

It may be well to add that hogs bred from young sows, and fattened on corn, are more likely to develop the disease than any others. This remark is the result of a long and patient observation of an unvarying effect.

To conclude this part of the subject I may say that the soundness of this theory has been demonstrated, to my complete satisfaction, by many experiments. I have found by these experiments, often repeated, that I could produce the disease called hog-cholera in any grain-fattened hog, by a little over-driving or over-feeding, or by any other decided change for the worse in his accommodations; and have never been able to produce it by such experiments in any other than the grain-fattened hog.

CHAPTER IV.

PREVENTION AND CURE OF INTESTINAL FEVER IN
SWINE.

ON this branch of the subject I begin by saying that, so far from endeavoring or desiring to keep my remedy a secret, I have frequently recommended and published it for the benefit of any who might be willing to make trial of its efficacy. But here I have met with no little difficulty. Pig-raisers, for the most part, seem endowed with a kind of fatality. If their hogs are going to have the cholera, they will have it, and that is the end of it. It is useless, they seem to think, to take preventive measures. Besides, they have been greatly discouraged by a long experience of the inefficacy of popular nostrums, many of which they have tried, and in spite of all of which their hogs would, somehow, mysteriously die. Over and above all, my remedy was too simple. It did not strike them as sufficiently elaborate and

expensive to meet the case of so terrible a scourge. In a few exceptional instances, however, it has been tried, and never, so far as I am informed, without success. It is on account of the difficulty above mentioned, that I have sought to draw the attention of the Government and the country to this subject, not doubting that the result of a full and careful investigation would be the discovery and general application of a remedy adequate to the evil.

To prevent hog-cholera, then, it is only needful :

1. To cease the practice of exclusive grain-feeding, and to feed largely on roots, of which the best of all is the turnip, and the next best the artichoke.

2. To breed only or chiefly from mature sows.

3. To allow the hog a fair and open range, in woods or bottoms, during a large proportion of the fattening season.

3. To allow him a dry, open place in which to sleep, and where he can make his bed on dry ground or leaves, and not by any means on straw, cotton seed or manure.

4. To give him unlimited access to muddy

water. Clay is his natural disinfectant, and he will mix it to suit himself. If kept for a long time from this, he will infallibly contract disease and die.

5 To give him salt frequently, and more especially in warm weather.

6. After putting him in the pen to fatten he should be turned out in damp weather.

7. There should be stone coal or charcoal in his pen. He must have a means of disinfecting himself.

8. His feeding-trough must be kept clean.

9. Give him a few turnips daily with his corn.

The disease called hog-cholera will never originate with hogs treated in this way. Nor will they take it even by contagion. The exclusively grain-fattened hog, if attacked by this disease, dies in from two to fourteen days; while those permitted to run wild and feed on grass and roots live from two to eight weeks, and often recover without special treatment. As stated in a previous chapter during several years in which I had under my care often as high as twenty thousand hogs, the disease never started in my

herds, and when they took it, from contact with others, it was easily controlled and extinguished by separation and proper feeding.

The disease, of which the symptoms have been clearly indicated, once distinctly developed in a herd of swine, the first thing to be done is to separate the sick from the well by such a distance as to render contagion practically impossible.

Then, with reference to the sick, it must be distinctly understood that all drugs are either useless or worse than useless. Either the hog must cure himself or he will die. Give him a chance, however, and he will cure himself, by following his own instinct of safety. This instinct is powerful and prevailing; it will lead him to seek and find, if they are within his reach, those roots which are necessary, by their internal action, to counteract his disease. He will be observed, before drinking, to stir up and mix clay with the water which he drinks. This is his best medicine. There is no more powerful or efficient disinfectant. He needs it in health and uses it without stint whenever the opportunity is given him. He wallows and lies in it for hours every day. In this he follows

his instinct of self-purification. It is a mistake to suppose him a dirty animal ; on the contrary, he is one of the cleanest of all our domestic animals. He takes more pains to cleanse himself than any other. If he wallows in a filthy pool, it is not for the filth, but because there only he can find, mixed with water, the clay which is his natural disinfectant. When he can find pure water on a bed of pure clay, he prefers it to the filthy soil to which he is too often condemned, because his keepers do not understand his nature and his wants. Having covered himself with a thick plaster of clay, and allowed it to soak into all the pores of his skin, he comes out, dries himself in the sun, and wind, and then rubs off the clay against the trees, fences or whatever he finds most convenient for his purpose. Then he has finished his toilet and is clean, and not only clean but pure and sweet. He has attended at once to his health and his luxury. He has thrown off those tendencies to disease to which, from the grossness of his feeding and the rapidity of his accretion, he is always liable.

All this is in the nature of the hog when well

When sick, it is because he has been violently turned out of the course of nature—cut off from those resources by which he would have kept himself in health if he had been permitted to do so. Now that he is diseased, he needs, first of all and above all, permission to follow his natural instincts. The feeding of corn should be, for a time at least, totally suspended. In place of corn, give him, for a week or ten days, as many turnips as he will eat; and when he is better and the grain feeding is resumed, give him soft corn mixed with turnips. This is generally all that can be done for him; and this treatment, to be efficacious, must be prompt. Whenever the disease has gone so far that the hog refuses to eat, and lacks the strength to disinfect himself, all efforts to save him will commonly prove useless. Dosing him with drugs is both idle and absurd, as “the game is not worth the candle.” It would cost more to cure him, by that system (even if it could be accomplished, which it never can), than he would be worth when cured. If there are early symptoms of brain affection, however, it may sometimes prove useful to apply a seton,

consisting of a leather string, on each side of the ridge of the neck.

THE CASE SUPPOSED.

To render the matter still plainer, so that it may be level to the apprehension of any mind, I will suppose that I am the owner of a hundred hogs, and that the disease known as hog-cholera appears among them. What, then, would I do? I answer:

1. That I would separate the sick from the well.
2. I would give both a range limited only by my convenience of observing and caring for them.
3. I would place within the reach of both stone-coal or charcoal, and salt.
4. I would give both free access to water and clay, so that they could mix the clay and water to suit themselves.
5. I would feed both, but particularly the sick, freely of turnips; and if I had not, and could not procure the turnips, then on artichokes, potatoes, and any other roots of which they would eat freely.

Finally, this done, I will guarantee that every hog not too sick to eat a full feed of turnips shall

get well, and that no other hog, thus treated and fed on turnips, shall take the disease, even by contagion.

As will be seen by the subjoined analysis, the amount of nutritive matter in turnips is very small. The common kinds have from 90 to 92, and the rutabagas about 87 per cent. of water. The albumenoids are from 1 to 1.6 per cent., and carbohydrates vary from 5 per cent. in the common to 9 per cent. in the rutabagas.

The leading garden sorts are the White Dutch, the earliest; the red-top strap-leaved, the best of the flat kinds; the Cow-horn, a foot long and three inches through, the half which grows above ground being green, and also grown as a field crop; and Yellow Aberdeen, purplish above and yellow below, with a yellow flesh. The following is the analysis:

SCOTCH TURNIP.

Water	89.30
Sugar	5.61
Gum	0.11
Albumen.....	0.72
Pectic Acid.....	1.76
Oil	0.19
Fibre.....	1.63
Saline Matter.....	0.54

And the following is the analysis of the ash:

Potash	41.96
Soda	5.09
Lime	13.60
Magnesia.....	5.34
Oxide of Iron.....	1.28
Phosphoric Acid	7.58
Sulphuric Acid.....	13.60
Chlorine	3.60
Silicia.....	7.95

It will thus be seen that the turnip contains, in simply perfect proportion, the medicines needed to counteract this terrible disease. If pig-raisers will cultivate or purchase and use it in accordance with the foregoing suggestions, the disease called hog-cholera will be banished from the earth.

I have spoken, heretofore, only of the importance of this cure to the material interests of the country; and the facts adduced go to show that, even in this point of view, it would be difficult to overstate the urgent necessity for a sure and efficacious preventive and remedy. But there is another aspect of the subject which ought not to be quite overlooked. I allude to the well-known fact that a very large proportion of the hogs driven or carried to market and there killed, are diseased. When it is remembered that these hogs are almost

exclusively corn-fattened, and that they have been over-heated, from crowding or driving, for several days previous to their arrival at the market, where they are almost immediately slaughtered; and that intestinal fever, after it is actually contracted, requires from one to three weeks for its full and fatal development; and that the immediate cause of its development, and that which can, upon experiment, be shown invariably to produce it in the grain-fattened hog, is this same over-driving, over-crowding and over-heating: I say, when all this is remembered, it is simply appalling to conjecture, how large a proportion of this bacon of merchandise must contain the germs of a horrible and fatal disease. It is perhaps no exaggeration to say, that at least one-fourth of it is so poisoned. And while it is true that this disease is not directly communicable to man, it does by no means follow that this diseased meat, when consumed by men, women and children, may not originate other and equally fatal pestilences among themselves. Indeed, it is already a well-ascertained fact, with the medical profession, that certain deadly and loathsome hu-

man diseases originate in this precise way ; and how many others may be produced by the same means, remains to be discovered. It is therefore not merely the life and health of swine which depend upon the discovery and application of this cure, but the lives and health of the owners and consumers of pork and bacon. If, then, we say to the swine, metaphorically, "Root, hog, or die," it may not be amiss to say, without metaphor, to those entrusted with the care and culture of swine, "Let the hog root, or you shall die."

TEXAS CATTLE-DISEASE.

This disease is hardly ever found in Texas. It is the simple effect of over-driving, over-crowding, and protracted hunger and thirst followed by over-eating and drinking. It is not found in Texas, because these excesses and abuses are not commonly practiced near the starting-point of a herd, but only as they approach their destination in the great markets.

Like the corresponding disease in swine, it is simply an intestinal fever, and its effects are very rapidly disorganizing, when once it is fully developed, though it requires from one to three weeks for its full development. I have noticed, on *post-mortem* examination, that the food in the paunch has invariably been found dry and hard.

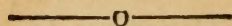
It is very contagious, and more especially to home cattle, and the contagion is most deadly and destructive.

It may be cured, however, very promptly and

certainly, by an exclusively watery diet, and the best and most certain remedy is young corn in the milk. There is no danger of excess, or need of caution to be employed. The diseased herd may be safely turned into a field of young corn, and left to cure themselves, which they will do in a few days.

I have tried this remedy repeatedly, with uniform success, and I have recommended it to others, whose experiments have been equally successful.

If green corn cannot be procured, any other succulent food will answer the same purpose; though the corn is unquestionably the best.




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 Any one who shall make trial of either of the above remedies, is respectfully requested to communicate the result to

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